

WHAT IS CLAIMED IS:

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- 5 1. A coated glass article comprising:
- (a) a glass substrate;
 - (b) a coating of antimony doped tin oxide deposited on and adhering to said glass substrate; and
 - (c) a coating of fluorine doped tin oxide deposited on and adhering to said coating of antimony doped tin oxide,
- 10 with the thickness of said coatings selected so that said coated glass article exhibits a difference between visible light transmittance (Illuminant C) and total solar energy transmittance, integrated with an air mass 1.5 on a clear glass substrate at a nominal 3 mm thickness, to
- 15 provide a selectivity of 13 or more.
2. The coated glass article of claim 1, wherein said coating of antimony doped tin oxide has a thickness of between about 1400 and 2400 angstroms.
- 20 3. The coated glass article of claim 2, wherein said coating of antimony doped tin oxide has a thickness of between about 1400 and 1900 angstroms.
- 25 4. The coated glass article of claim 3, wherein said coating of antimony doped tin oxide is about 1700 to about 1800 Angstroms thick.
- 30 5. The coated glass article of claim 1, wherein and said coating of fluorine doped tin oxide has a thickness of between about 2000 and 3500 angstroms.

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6. The coated glass article of claim 5, wherein and said coating of fluorine doped tin oxide has a thickness of between about 2200 and 3500 angstroms.

5 7. The coated glass article of claim 6, wherein said coating of fluorine doped tin oxide is about 2800 to about 3200 Angstroms thick.

10 8. The coated glass article of claim 1, wherein said coated glass article has an emittance less than or equal to about 0.2.

15 9. The coated glass article of claim 8, wherein said coated glass article has an emittance less than or equal to about 0.15.

20 10. The coated glass article of claim 1, wherein said glass substrate is a clear float glass ribbon.

25 11. The coated glass article of claim 1, wherein said article exhibits a neutral color in glass side reflectance as defined in the CIELAB system having an a* value from about 0 to about -6 and a b* value of about 0 to about -6.

12. The coated glass article of claim 1, wherein the molar ratio of antimony to tin in the antimony doped tin oxide coating is between about 0.05 and 0.12.

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13. The coated glass article of claim 1, wherein said coated glass article exhibits a visible light transmittance (Illuminant C) of 63% or more and a total solar energy transmittance integrated with an air mass 1.5 of 53% or less on a clear glass substrate at a nominal 3 mm thickness.

14. The coated glass article of claim 1, wherein said coated glass article exhibits a visible light transmittance (Illuminant C) of 59% or more and a total solar energy transmittance integrated with an air mass 1.5 of 49% or less on a clear glass substrate at a nominal 3mm thickness.

15. An insulating glass unit for architectural windows, including a coated glass article as defined in claim 1.

16. The insulating glass unit of claim 15, wherein said insulated glass unit has a U value less than 0.4.

17. The coated glass article of claim 1, further comprising an iridescence-suppressing interlayer between said glass substrate and said coating of antimony doped tin oxide.

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18. The coated glass article of claim 17, wherein said coated glass article has a visible light transmittance (Illuminant C) of 63% or more and a total solar energy transmittance integrated with an air mass 1.5 of 53% or less on a clear glass substrate at a nominal 3 mm thickness, and exhibits a neutral color in glass side reflectance as defined in the CIELAB system having an a* value from about 0 to about -6 and a b* value of about 0 to about -6.

19. The coated glass article of claim 17, wherein said iridescence suppressing interlayer comprises a layer of undoped tin oxide, and deposited on and adhering to said layer of undoped tin oxide, a layer of silica.

20. The coated glass article of claim 19, wherein the total optical thickness of said undoped tin oxide layer and said silica layer is from 1/6th to 1/12th of a 500nm design wavelength.

21. The coated glass article of claim 19, wherein said undoped tin oxide layer has a thickness of between about 150-350 angstroms, and said silica layer has a thickness of between about 150-350 angstroms.

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22. An insulating glass unit comprising:

(a) a first glass substrate;

(b) a second glass substrate having an inner surface and an outer surface, said second glass substrate being secured to said first glass substrate in a spaced apart relationship with said inner surface facing said first glass substrate; and

(c) a multilayer coating stack deposited on and adhered to said inner surface of said second glass substrate, said multilayer coating stack comprising:

(i) a coating of antimony doped tin oxide deposited on and adhering to said inner surface, said coating of antimony doped tin oxide having a thickness of between about 1400 and 1900 Angstroms; and

(ii) a coating of fluorine doped tin oxide deposited on and adhering to said coating of antimony doped tin oxide, said coating of fluorine doped tin oxide having a thickness of between about 2200 and 3500 Angstroms;

said multilayer coating being such that said second glass substrate exhibits a difference between visible light transmittance (Illuminant C) and total solar energy transmittance, integrated with an air mass 1.5 on a clear glass substrate at a nominal 3 mm thickness, of 13 or more.

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23. The insulating glass unit of claim 22, wherein said insulating glass unit has a U value less than 0.4.

24. The insulating glass unit of claim 22, wherein said insulating glass unit has a U value which is at least 15% less than the U Value of an insulating glass unit of the same construction but utilizing two panes of uncoated glass.

25. The insulating glass unit of claim 22, wherein the total solar energy transmittance is at least 25% less than the total solar energy transmittance of an insulating glass unit of the same construction but utilizing two panes of uncoated glass.

26. A coated glass article comprising:

(a) a glass substrate;

(b) a coating of antimony doped tin oxide deposited on and adhering to said glass substrate, said coating of antimony doped tin oxide having a thickness of between about 1400 and 1900 Angstroms; and

(c) a coating of fluorine doped tin oxide deposited on and adhering to said coating of antimony doped tin oxide, said coating of fluorine doped tin oxide having a thickness of between about 2200 and 3500 Angstroms;

said coated glass article exhibiting a difference between visible light transmittance (Illuminant C) and total solar energy transmittance, integrated with an air mass 1.5 on a clear glass substrate at a nominal 3 mm thickness, to provide a selectivity of 13 or more.

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conf* 27. The coated glass article of claim 26, wherein
said coated glass article has an emittance less than or
equal to about 0.15.

5 28. The coated glass article of claim 26, wherein
said article exhibits a neutral color in glass side
reflectance as defined in the CIELAB system having an a*
value from about 0 to about -6 and a b* value of about 0 to
about -6.

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